ABSTRACT OF THE DISCLOSURE

The invention relates to polynucleotides for DNA vaccination which polynucleotides encode an HIV envelope protein or fragment or immunogenic derivative fused to an additional HIV protein selected from a non-structural protein or capsid protein or fragment or immunogenic derivative thereof. Preferably the HIV envelope molecule is gp120 and preferred fusions include one or more of HIV Nef, Gag, RT or Tat. Preferably the HIV envelope molecule is non-glycosylated in mammalian cells.